

## **AMENDMENTS TO THE DRAWINGS**

Replacement sheets for amendments to the drawings are attached.

## REMARKS

In response to the Office Action dated September 2, 2004, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-35, 37, 38, and 39-42 are pending. Claims 35 is amended to include the subject matter of claim 36 and claim 36 is cancelled. New claims 39-42 are added. The new claims contain no new matter and are supported by the specification, including drawings and claims.

The Office Action objected to the Information Disclosure Statement as failing to comply with 37 C.F.R. 1.97, 1.98 and MPEP § 609.

A Supplementary IDS was filed on January 13, 2005 by David A. Fox to overcome this objection.

The Office Action objected to the specification, because it contains an embedded hyperlink, referring to under MPEP § 608.01.

Paragraph [0012] on page 3 of Applicant's Specification is amended to remove the embedded hyperlinks.

The Office Action objected to the drawings under 37 C.F.R. 1.83(a).

Amendments are made to the specification and drawings for the computers recited in claims 16, 17, 19, 22, 23, 24, and 27. Paragraph [0041] of the specification is amended to include new reference numerals 136 and 131. Computers 136 and 131 are added to Figure 1, as supported by paragraphs [0041] and [0047] of the specification.

However, no changes are made for claim 28, which recites, *inter alia*, "wherein the location system comprises a mobile telephone switching office." The location system 155 and the mobile telephone switching office (MTSO) 130 are already shown in Figure 1. Claim 28 is further supported by paragraph [0047] on page 11 of the specification, which states:

[0047] It should be understood that the block diagram of Figure 1 is functional in nature and is, therefore, but one example of how the overall system architecture may be designed. In particular,

MTSO 130 and location system 155 are shown in Figure 1 to clearly illustrate the mobile switching operation of the one and localization operation of the other. However, MTSO 130 and location system 155 could easily be combined or further subdivided. For example, the localization processing performed by location system 155 could alternatively be performed by and integrated into MTSO 130.

The Office Action rejected claims 16, 17, 19, 22, 23, 24, and 27-34 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

A *prima facie* case of lack of written description requires that the application does not reasonably describe or convey the concepts to one of ordinary skill in the art at the time of filing the patent application that the inventor had possession of the claimed invention. The Office Action failed to establish a *prima facie* case of lack of written description, because Applicant's specification, including drawings and original claims, reasonably describes the concepts of the rejected claims for at least the following reasons.

Claims 16, 17, 19, 22, 23, 24, and 27-34 are reasonably described in the whole specification, including Figures 1, 2, 4, and 5 and pages 5-21. The drawings convey with reasonable clarity, to those of ordinary skill in the art, the claimed subject matter. For example, Figure 1 shows location system 155, portable wireless device (PWD) 180, serving cell C1 140, mobile telephone switching office (MTSO) 130, computer 131, and computer 136, *inter alia*. For example, Figure 2 shows serving cell C1, target cell E3, candidate cell F3, position  $t_1(x_1, y_1)$  and position  $t_2(x_2, y_2)$ , *inter alia*. For example, Figure 4 shows determining a position vector 410 and determining a velocity vector 420, *inter alia*. For example, Figure 5 shows handoff alert 525, process position and/or signal strength to determine target cell 535, *inter alia*.

The Office Action rejected claims 27-34 under 37 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

Computers are shown in the example system 50 of Figure 1 as elements 131 and 136. Computer 131 is in the MTSO 130 in system 50. Computers 136 are in the cells 140 in the cellular system 100 of system 50. Therefore, computers are shown in

Figure 1 along with where they are connected in an exemplary system. As stated in the Office Action, “it would have been very obvious, if not expected, to one of ordinary skill in the art at the time the claimed invention was made to incorporate the use of computers in the cell sites and mobile switching offices....” (Office Action, page 23, paragraph 18). Of course, as stated in the specification, system 50 in Figure 1 is but one example of how the overall system architecture may be designed. Components, such as computers, may be rearranged and still be within the scope of the claimed invention. “For example, the localization processing performed by location system 155 could alternatively be performed by and integrated into MTSO 130.” (Applicant’s Specification, page 11, paragraph [0047]). Having multiple embodiments or ways the system may be designed is no barrier to enablement. One skilled in the art will appreciate that components, such as computers, may be placed in various other components of the overall system, such as a cell, MTSO, or location system, and still be within the claimed invention.

The Office Action rejected claims 1-8, 11, 15, 18, 22, 25-32, and 35-38 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,438,376 to Elliot et al. (“Elliot”).

Anticipation requires that the reference disclose all the elements as arranged in the claims. Elliot fails to disclose all the elements for at least the following reasons.

Claim 1 recites, *inter alia*, “determining a target cell based on the position; and assigning the portable wireless device to the target cell”. By contrast, Elliot assigns a channel based on either a “quality index (QI)” or a “power level (PL)”. (Elliot, Figures 12, 13, and 14, col. 12 lines 27-54, col. 13 lines 7-9 and 56-58, col. 14 lines 4-60). Elliot does not determine the target cell based on the position. Elliot only uses the position to determine which “quadrant” in which the mobile station is located. (Elliot, Figure 12, col. 13 lines 50-53). Then, Elliot finds the best available channel for that quadrant based on the quality of service ranking, not the position. (Elliot, Figure 12, col. 13 lines 53-58). The claimed invention is simpler; it determines the target cell just based on the position, without calculating any “matrix 240” or “quality indexes”, so that less overhead and processing are required for the

claimed invention. (Elliot, Figure 11, col. 12, lines 55-67). Therefore, claim 1 is patentable over Elliot.

Claims 2-8, and 11 depend, directly or indirectly, from claim 1, and, thus, inherit at least the patentable subject matter of claim 1. Therefore, dependent claims 2-8, and 11 are also patentable over Elliot.

Claim 15 recites, *inter alia*, “means for determining a target cell based on the position”. For the same reasons as given above with respect to claim 1, claim 15 is also patentable over Elliot.

Claims 18, 22, 25, and 26 depend, directly or indirectly, from claim 15, and, thus, inherit at least the patentable subject matter of claim 15. Therefore, dependent claims 18, 22, 25, and 26 are also patentable over Elliot.

Claim 27 recites, *inter alia*, “wherein the computer is further adapted to determine the target cell based on the position.” For the same reasons as given above with respect to claim 1, claim 27 is also patentable over Elliot.

Claims 27-32 depend, directly or indirectly, from claim 27, and, thus, inherit at least the patentable subject matter of claim 27. Therefore, dependent claims 27-32 are also patentable over Elliot.

Claim 35 recites, *inter alia*, “ generating a handoff alert because the portable wireless device is at or is approaching a boundary of the serving cell”. After careful review, Applicant was unable to find any such handoff alert in Elliot. A handoff alert is useful because, for example, in response to the handoff alert, MTSO 130 and/or location system 155 in Figure 1 may computer a present location of PWD 180. (Applicant’s Specification, page 17, paragraph [0067]). Therefore, claim 35 is patentable over Elliot.

Claims 37 and 38 depend, directly or indirectly, from claim 35, and, thus, inherit at least the patentable subject matter of claim 35. Therefore, dependent claims 37 and 38 are also patentable over Elliot.

The Office Action rejected claims 9, 10, 12, 13, 20, 21, 23, 24, 33, and 34 under 35 U.S.C. § 103(a) as being unpatentable over Elliot in view of U.S. Patent No. 6,211,819 to King et al. (“King”).

*A prima facie* case of obviousness requires that the combination of Elliot and

King teach or suggest all the claim elements.

Claims 9, 10, 12, and 13 depend, directly or indirectly, from claim 1 and, thus, inherit at least the patentable subject matter of claim 1. As shown above, Elliot fails to disclose determining the target cell based on the position. After careful review, Applicant was unable to find any such determination of the target cell based on the position in King. Therefore, claims 9, 10, 12 and 13 are also patentable over the combination of Elliot and King.

Claims 20, 21, 23, and 24 depend, directly or indirectly, from claim 15 and, thus, inherit at least the patentable subject matter of claim 15. As shown above, Elliot fails to disclose determining the target cell based on the position. After careful review, Applicant was unable to find any such determination of the target cell based on the position in King. Therefore, claims 20, 21, 23, and 24 are also patentable over the combination of Elliot and King.

Claims 33 and 34 depend, directly or indirectly, from claim 27 and, thus, inherit at least the patentable subject matter of claim 27. As shown above, Elliot fails to disclose determining the target cell based on the position. After careful review, Applicant was unable to find any such determination of the target cell based on the position in King. Therefore, claims 33 and 34 are also patentable over the combination of Elliot and King.

The Office Action rejected claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Elliot in view of U.S. Patent No. 6,711,408 to Raith (“Raith”).

Claim 14 depends from claim 1 and, thus, inherits at least the patentable subject matter of claim 1. As shown above, Elliot fails to disclose determining the target cell based on the position. After careful review, Applicant was unable to find any such determination of the target cell based on the position in Raith. Therefore, claim 14 is also patentable over the combination of Elliot and Raith.

The Office Action rejected claims 16, 17, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Elliot in view of U.S. Patent No. 4,829,554 to Barnes (“Barnes”) or U.S. Patent No. 5,499,387 to Chambert (“Chambert”).


Claims 16, 17, and 19 depend, directly or indirectly, from claim 15 and, thus, inherit at least the patentable subject matter of claim 15. As shown above, Elliot fails

to disclose determining the target cell based on the position. After careful review, Applicant was unable to find any such determination of the target cell based on the position in Barnes or Chambert. Therefore, claims 16, 17, and 19 are also patentable over the combination of Elliot, Barnes, and Chambert.

For at least the reasons advanced above, it is respectfully submitted that the application is in condition for allowance. Accordingly, reconsideration and allowance of the claims are respectfully requested. The Examiner is cordially requested to telephone, if the Examiner believes that it would be advantageous to the disposition of this case.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment, which may be required for this amendment, to Deposit Account No. 06-1130. In the event that an extension of time is required, or may be required in addition to that requested in any petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 06-1130.

Respectfully submitted,

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